PATENT

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MARKED-UP VERSION OF THE CHANGES TO THE ABSTRACT

(IN THE ABSTRACT: ABSTRACT OF THE DISCLOSURE

A device for preparing plastic material, in particular, thermoplastic material, comprises a receptacle (1) for the material, in which rotating tools (21) are provided to act onto the material which are supported by a support disc (9) and rotate about a vertical axis (8) of the receptacle (1). Driving of the support disc (9) is effected by a shaft (4) which passes through the bottom (3) of the receptacle (1) and is driven by a motor (5). The material is discharged from the receptacle (1) through a discharge opening (15) to which the housing (16) of a screw (17) is attached. The discharge opening (15) is provided within the same receptacle (1) and is situated below the path of rotation of the tools (21) and below the support disc (9). Additional moving tools (12) are provided within the same receptacle (1) below the support disc (9) which convey the material into the discharge opening (15). In this way a long dwelling time of the treated plastic material within the receptacle (1) is achieved so that constructive length and driving energy for the screw (17) are economized.

A method for preparing such plastic material provides that the material is continuously treated within the same receptacle in two successive steps by means of two sets of tools arranged one above the other. In the first step carried out by the upper set of tools, the material is precomminuted and/or pre-heated and/or pre-dried and/or pre-mixed. In the second step carried out by the lower set of tools, the same treatment is effected, but less intensively as compared with the first step. The material thus treated is supplied by the tools of the second step to a screw which discharges the material from the receptacle.

[(Fig. 1)]

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MARKED-UP VERSION OF THE CHANGES TO THE CLAIMS

- 4. (amended) Device according to [claim 2 or 3] <u>claim 2</u>, characterized in that the additional moving tools (12) are formed by impact tools mounted pivotally about vertical axes on the rotor (7) in the region of the periphery of the rotor (7).
- 6. (amended) Device according to [claim 2 or 3] claim 2, characterized in that the additional moving tools (12) are formed by shovels or knives mounted on the rotor (7) and, optionally, have surfaces or edges, particularly cutting edges (22), which are bent or angled outwardly in opposite direction to that of the rotation (arrow 23).
- 7. (amended) Device according to [claim 1, 2 or 3] claim 1, characterized in that the additional moving tools (12) are formed by bars mounted either on the shaft (4) or on the rotor (7).
- 9. (amended) Device according to [any one of claims 1 to 8] claim 1, characterized in that the path of revolution of the additional moving tools (12) is at least partly at the level of the discharge opening (15) of the receptacle (1).
- 10. (amended) Device according to [any one of claims 1 to 9] claim 1, characterized in that a plurality of sets of additional moving tools (12) are provided one above the other and distributed in peripheral direction of the receptacle (1).
- 11. (amended) Device according to [any one of claims 1 to 10] claim 1, characterized in that the width of the free annular gap (11), when measured in radial direction of the shaft (4), amounts to 20 to 150 mm, preferably 20 to 100 mm.
- 12. (amended) Device according to [any one of claims 1 to 11] claim 1, characterized in that the housing (16) of the screw (17) is connected tangentially to the receptacle (1) so that the discharge opening (15) lies on the superficies of the housing (16).